APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,623	12/01/2000	Michael Hallinan	GB919990093US1	4188

7590 06/04/2004	EXAMINER
Floyd A. Gonzalez	LEZAK, ARRIENNE M
IBM Corporation	
2455 South Road, P386	
Poughkeepsie, NY 12601	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No	Applicant(s)
	09/727,623	HALLINAN ET AL.
Office Action Summary	Examiner	Art Unit	
	Arrienne M. Lezak	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-24* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *01 December 2000* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☒ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 9 & 19 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Examiner finds the claim language to be unclear,

particularly, "the dummy resources are replaced in the service request by the respective

allocated resources for forwarding to the service provider". Examiner is unclear as to

what Applicant intended to be forwarded to the service provider. Examiner notes that

as written, Claims 9 & 19 could be interpreted several ways, and as such are rejected

as being indefinite.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent 6,151,688 to Wipfel in view of US Patent 5,764,626 to VanDervort.

5.   Regarding Claims 1, 11, 21 and 24, Wipfel discloses a method, apparatus and

computer-readable medium for allocating resources of a service provider to a plurality of

users of the service provider in a data processing system wherein the resources are

maintained in a resource pool, (Abstract; Fig. 2 & 7; Col. 3, lines 41-62; and Col. 8, lines

7-67), when not allocated to a user and comprise a plurality of first and second

resources, each second resource being associated with a first resource for use together

with the associated first resource, and wherein, to invoke performance of a service by

the service provider, a user issues a first resource request, requesting a first resource,

one or more second resource requests, requesting one or more second resources, and,

following receipt of the requested resources; issues a service request including the

received first resource and at least one received second resource, requesting

performance of the service, (Col. 8, lines 7-67; Col. 14, lines 61-65; Cols. 15 & 16), the

method comprising steps of:

- dispensing resources to a user in response to the first and second

    resource requests, each resource representing a resource

    requested by the user, (Col. 8, lines 52-59 and Col. 15, lines 36-

    41); and

- in response to the service request from the user, allocating

    corresponding resources from the resource pool to the user, (Col.

    8, lines 52-59 and Col. 15, lines 36-41).

6.   Examiner notes that it would have been obvious to use connection and object

handles for identification within a resource management/allocation system such as

Wipfel. As said first and second resource requests represent connection and object

handles, the issuing of first and second resource requests would have been obvious,

(perhaps even inherent), in view of the teachings of Wipfel. Examiner further notes that

Wipfel discloses available methods and tools for mediating requests for sharable

resources from a global pool which are well-known, including, but not limited to

preventing deadlock, load-balancing, scheduling and cache management, (Col. 14,

lines 61-65). Moreover, Wipfel teaches a global queue wherein resources are

redistributed as needed, (Cols. 15 & 16).

7.   Wipfel does not specifically teach the dispensing of dummy resource buffers that

are later replaced by corresponding actual resources in response to service requests for

the same. VanDervort discloses a resource management dummy test cell capable of

being identified, modified, discarded or replaced, (Col. 18, lines 1-35). It would have

been obvious to one of ordinary skill in the art at the time of invention by Applicant to

apply the dummy node forwarding technique of VanDervort to the Wipfel resource

management system. The motivation to combine is found in the common resource

management capabilities taught by both Wipfel and VanDervort. Moreover, the addition

of dummy node forwarding, (which has been well-known in the art for various

purposes), would clearly provide for memory pre-allocation, which is an obvious

performance advantage within a system, (like Wipfel), which already provides for the

pre-allocation of resources, including memory buffers, (Col. 8, lines 7-67). Thus, Claims

1, 11, 21 and 24 are unpatentable in view of the combined teachings of Wipfel in view of

VanDervort.

8.   Regarding Claims 2 & 12, Wipfel in view of VanDervort is relied upon for those

teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a

method, apparatus and computer-readable medium for allocating resources of a service

provider to a plurality of users of the service provider in a data processing system using a dummy node forwarding technique, wherein corresponding resources from the resource pool are allocated to dispensed dummy resources according to the best match between the set of resources represented by the dummy resources dispensed to the user and groups of associated first and second resources in the resource pool. Examiner notes that it would have been obvious to dispense dummy, (and actual), resources, which best met the needs and capabilities of the user, as to do otherwise would defeat the purpose of a resource management system. Thus, Claims 2 & 12 are unpatentable in view of the combined teachings of Wipfel in view of VanDervort.

9.   Regarding Claims 3 & 13, Wipfel in view of VanDervort is relied upon for those teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a method, apparatus and computer-readable medium for allocating resources of a service provider to a plurality of users of the service provider in a data processing system using a dummy node forwarding technique, wherein in response to the first and second resource requests from a user, a resource is reserved, (scheduled), in the resource pool corresponding to each resource requested by the user, (Col. 8, lines 7-67; Col. 14, lines 61-65; and Cols. 15 & 16). Thus, Claims 3 & 13 are unpatentable in view of the combined teachings of Wipfel in view of VanDervort.

10.   Regarding Claims 4, 5, 14 & 15, Wipfel in view of VanDervort is relied upon for those teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a method, apparatus and computer-readable medium for allocating resources

of a service provider to a plurality of users of the service provider in a data processing system using a dummy node forwarding technique, wherein:

- in response to a first resource request from a user, determining whether the resource pool contains an unreserved first resource, if so reserving that first resource for the user, and if not obtaining a new first resource from the service provider, adding the new first resource to the resource pool and reserving that resource for the user;

- in response to a the second resource request from the user, determining whether a first group of resources, comprising the first resource reserved for the user and any second resources associated with that first resource in the resource pool, contains an unreserved second resource corresponding to the resource requested in the second resource request, if so reserving that second resource for the user, and if not:

- determining whether the resource pool contains a second group of associated, unreserved first and second resources, which group comprises all the resources requested by the user, and if so reserving those resources in the second group for the user and removing the reservations on resources previously reserved for the user, (per pending Claims 4 & 14); and

-           if it is determined that the resource pool does not contain the

second group, the method includes obtaining from the service

provider a new second resource, associated with the reserved first

resource, corresponding to the resource requested in the second

resource request, adding the new second resource to the resource

pool and reserving that resource for the user, (per pending Claims

5 & 15).

11.   Examiner notes that the requesting, load balancing, scheduling, (such as, but not

limited to the transferring and interchanging of resource reservations), adding and

removing of resources within a resource pool using a global queue, (and all obvious

variations thereof) is disclosed herein above. Examiner further notes that it would have

been obvious to reserve an available resource wherever located. Further, in the event

that a resource was no longer needed, it would have been obvious to cancel a resource

reservation. Thus, Claims 4, 5, 14 & 15 are unpatentable in view of the combined

teachings of Wipfel in view of VanDervort.

12.   Regarding Claims 6, 7, 16 & 17, Wipfel in view of VanDervort is relied upon for

those teachings disclosed herein. As noted above, Wipfel in view of VanDervort

discloses a method, apparatus and computer-readable medium for allocating resources

of a service provider to a plurality of users of the service provider in a data processing

system using a dummy node forwarding technique, wherein if it is determined that the

resource pool does not contain the second group, the method includes determining

whether:

-     the resource pool contains a third group of associated first and second resources which includes all the resources requested by the user and in which one or more of the resources is reserved; and

-     the first group of resources includes a resource corresponding to each reserved resource in the third group;

-     if so, interchanging the reservations between the first and third groups and reserving for the user the resource in the third group corresponding to the resource requested in the second resource request, and if not obtaining from the service provider a new second resource, associated with the reserved first resource, corresponding to the resource requested in the second resource request, adding the new second resource to the resource pool and reserving that resource for the user, (per pending Claims 6 & 16); and

-     if it is determined that the resource pool does not contain the second group: determining whether the resource pool contains a plurality of further groups of associated first and second resources, one or more of the further groups containing resources reserved for respective further users, such that the reservations for the users may be transferred between groups among the first and further groups to obtain a group which has one or more reservations for the user that issued the second resource request and which

includes an unreserved second resource corresponding to the

resource requested in the second resource request; and

- if so, transferring the reservations between the groups and

reserving the unreserved second resource for the user that issued

the second resource request;

- and if not obtaining from the service provider a new second

resource, associated with the first resource reserved for that user,

corresponding to the resource requested in the second resource

request, adding the new second resource to the resource pool and

reserving that resource for the user, (per pending Claims 7 & 17).

13.   Examiner notes that the requesting, load balancing, scheduling, (such as, but not

limited to the transferring and interchanging of resource reservations), adding and

removing of resources within a resource pool using a global queue, (and all obvious

variations thereof) is disclosed herein above. Examiner further notes that it would have

been obvious to reserve an available resource wherever located. Further, in the event

that a resource was no longer needed, it would have been obvious to cancel a resource

reservation. Thus, Claims 6, 7, 16 & 17 are unpatentable in view of the combined

teachings of Wipfel in view of VanDervort.

14.   Regarding Claims 8 & 18, Wipfel in view of VanDervort is relied upon for those

teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a

method, apparatus and computer-readable medium for allocating resources of a service

provider to a plurality of users of the service provider in a data processing system using

a dummy node forwarding technique wherein in response to the service request from a user, allocating the resources reserved for the user to the corresponding dummy resources dispensed to the user. Examiner further notes that it would have been obvious to replace dummy resources with actual resources either automatically or upon request. Thus, Claims 8 & 18 are unpatentable in view of the combined teachings of Wipfel in view of VanDervort.

15.   Regarding Claims 9 & 19, Wipfel in view of VanDervort is relied upon for those teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a method, apparatus and computer-readable medium for allocating resources of a service provider to a plurality of users of the service provider in a data processing system using a dummy node forwarding technique wherein the dummy resources are replaced in the service request by the respective allocated resources for forwarding to the service provider. Examiner interprets this to mean that the service provider is informed of the dummy resource replacement for actual resource accounting purposes. Such accounting of resource distribution would have been obvious, perhaps even inherent within a resource management system. Thus, Claims 9 & 19 are unpatentable in view of the combined teachings of Wipfel in view of VanDervort.

16.   Regarding Claims 10 & 20, Wipfel in view of VanDervort is relied upon for those teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a method, apparatus and computer-readable medium for allocating resources of a service provider to a plurality of users of the service provider in a data processing system using a dummy node forwarding technique wherein the first resources obviously comprise

connection handles, each identifying a connection between the service provider and a
user, and wherein the second resources obviously comprise object handles, each
identifying an object to be used by the service provider in performance of a service for
the associated connection. Thus, Claims 10 & 20 are unpatentable in view of the
combined teachings of Wipfel in view of VanDervort.

17.   Regarding Claims 22 & 23, Wipfel in view of VanDervort is relied upon for those
teachings disclosed herein. As noted above, Wipfel in view of VanDervort discloses a
method, apparatus and computer-readable medium for allocating resources of a service
provider to a plurality of users of the service provider in a data processing system using
a dummy node forwarding technique wherein the service provider could obviously be a
message queuing program, (per pending Claim 22), or a database program, (per
pending Claim 23), as queuing is taught by Wipfel and a multitude of disparate
resources are obviously and generally managed using a database. Thus, Claims 22 &
23 are unpatentable in view of the combined teachings of Wipfel in view of VanDervort.

Conclusion

18.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure:

> US Patent US 6,353,898 B1 to Wipfel;
>
> US Patent 5,826,270 to Rutkowski; and
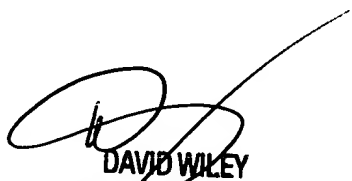>
> US Patent US 6,349,097 B1 to Smith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (703)-305-0717. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (703)-308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Arrienne M. Lezak
Examiner
Art Unit 2143

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AML

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100